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EXAMINER

VERBITSKY, GAIL KAPLAN

ART UNIT PAPER NUMBER

2859

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/802,050

Applicant(s)

CHI, YU-CHIAO

Examiner

Gail Verbitsky

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>06/07/2004</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Objections

1. Claims 1-2 are objected to because of the following informalities:

Claim 1: A) the parenthesis before "associated" in line 11 should be deleted, B) "said surface temperature data" in line 14 lacks antecedent basis,

Claim 2: Perhaps applicant should replace "temperature sensor" in line 1 with —sensor means—for proper antecedent basis. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In this case,

Claim 1: the term "preferably" in lines 2, 3 and 12, and "particularly" in line 7 makes the claim language confusing because a broad range or limitations followed by linking terms, e.g., preferably, maybe, for instance, especially, particularly, and a narrow range or limitation within the broad range or limitations is considered indefinite since the resulting claim does not clearly set forth the metes and bounds of the patent desired.

Claim 3: the term "especially" in line 2 makes the claim language confusing because a broad range or limitations followed by linking terms, e.g., preferably, maybe, for instance, especially, particularly, and a narrow range or limitation within the broad range or limitations is considered indefinite since the resulting claim does not clearly set forth the metes and bounds of the patent desired

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Claim 9: the term "in particular" in line 5 makes the claim language confusing because a broad range or limitations followed by linking terms, e.g., preferably, maybe, for instance, especially, particularly, and a narrow range or limitation within the broad range or limitations is considered indefinite since the resulting claim does not clearly set forth the metes and bounds of the patent desired

Claims 2-8 are rejected by virtue of their dependency on claim 1.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-2, 4-5, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pompei (U.S. 6292685).

Pompei discloses a device to measure a skin surface temperature. The device comprises an infrared sensor probe for detection temperature of skin (at a second body site) and producing a temperature signal data. The device also comprises a sensor means (thermistor) 98 inside the infrared sensor probe (thermopile) to measure a reference (cold junction/ ambient) temperature and producing reference operating temperature signal data. In addition the device comprises a calculating unit and a memory associated with the calculating unit. A reference data (correction factor/ weighting factor) derived from clinical tests and, inherently, stored in memory. Pompei teaches to calculate/ estimate a core (rectal or oral) temperature based on the skin

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temperature data and the ambient temperature and using weighting coefficients from the memory. Pompei states that the skin temperature varies with perfusion (physiological parameter), and that the reference data (weighting coefficient empirically determined from prior clinical experiments/ statistics (col. 7, lines 47-49).

For claim 5: as shown in formula (6), the core temperature is linear function (linear interpolation) of the skin temperature.

For claim 9: The fact that Pompei uses the coefficients to calculate the temperature, suggests that Pompei teaches to store/ obtain a weighting coefficient (from memory/ look up table) corresponding to measured skin temperature (second body site, thus, being a first group) and ambient temperature which produces a reference operating temperature signal data, and based on this step, estimate/ calculate the core temperature.

In addition, Pompei teaches a calibration mode/ séquence. A switch 104 is responsible for a calibration mode (switching between modes).

With respect to "whereby"/"thereby", as stated in claim 1: it has been held that the functional "whereby" statement does not define any structure and accordingly cannot serve to distinguish. In re Mason, 114 USPQ 127, 44 CCPA 937 (1957).

6. Claims 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pompei in view of Schuh (U.S. 5857777).

Pompei discloses a device as stated above in paragraph 5.

Pompei does not explicitly teach an EEPROM.

Schuh discloses a device in the field of applicant's endeavor wherein all reference data (calibration coefficients) are being stored in an EEPROM. Schuh teaches

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to store in memory (LUT) cold junction compensation coefficients (data relating to ambient temperature, thus, being a second group). Also, Schuh teaches to store in memory (LUT) data relating to measured (at a first body site) temperature, as shown in Fig. 5 (third group). The data stored in memory is, inherently, related to the data obtained in clinical tests.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by Pompei, so as to have an EEPROM, as taught by Schuh to keep all the data, so as to make it easier for the operator to use the memory and program the memory, and also to obtain quick results using a high speed EEPROM, as very well known in the art.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by Pompei, so as to keep the data relating to all components of the measurements, i.e., first body site temperature, second body site temperature and ambient temperature, in the memory, so as to allow the operator to obtain accurate data for all components, in order to achieve more accurate results of measurements.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pompei in view of Listl (U.S. 6314994).

Pompei discloses a device as stated above in paragraph 4.

Although Pompei teaches a calibration mode, Pompei does not explicitly teach to switch between the calibrating and operating modes, as stated in claim 7.

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Listl teaches to have two modes, calibrating and measuring (operating) and switch between them.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by Pompei, so as to switch between the calibration and operation (measurement) modes, as taught by Listl, so as to allow the operator to calibrate the device prior to use, as very well known in the art.

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pompei in view of Kraus et al. (U.S. 6789936).

Pompei discloses the device as stated above in paragraph 4.

Pompei does not explicitly teach the limitations of claim 8.

Kraus discloses a device, which accommodates to measuring temperature at different sites and states that when switched from one site measurement to another, a switch actuates different temperature calculation methods using different formulas and using different parameters (entire col. 2). This would imply, that the formulas and parameters are stored in memory (LUT).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by Pompei, so as when switched between different measurement modes, the device uses different formulas and parameters, to calculate the temperature, as taught by Kraus, so as to achieve more accurate results by considering that the temperature is different at different body sites.

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Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in the PTO-892 and not mentioned above disclose related devices and methods.

Tokita et al. U.S. 20020191675 teaches an estimation (calculating) circuit to estimate/ calculates a temperature inside a live body (core: rectal or oral) by measuring a temperature of a forehead.

Any inquiry concerning this communication should be directed to the Examiner Verbitsky who can be reached at (571) 272-2253 Monday through Friday 8:00 to 4:00 ET.

GKV

Gail Verbitsky

Primary Patent Examiner, TC 2800



February 01, 2005